



INTERNATIONAL WATERS RESULTS NOTES

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15-09-2011

Moldova Agricultural Pollution Control Project (APCP)

GEFID#: 1355, GEF Agency Project ID#: P075995; Project Status: Completed



- 1. Reduction in nutrient loads to local soil and water bodies in project area:** Installation of manure management systems, including construction of manure platforms, adequate manure storage facilities and training in optimum application of manure as fertilizers as well as implementation of environmentally friendly agricultural practices such as shrub and tree planting led to a significant decrease in nutrient loads entering soil and water bodies from agricultural sources.
- 2. Increased awareness of environmental issues among agro-processors and farmers:** A broad nation-wide public awareness program of project benefits led to a significant increase in the percentage of farmers recognizing the importance of mainstreaming environmental considerations in agriculture and implementing environmentally friendly agricultural practices.
- 3. Development of institutional and human capacity:** Staff in relevant agencies/institutes such as the Soil Institute were trained in good agricultural practices as well as monitoring soil and water quality. Capacity building among agricultural advisors will ensure dissemination of project benefits for years to come and increased potential for large-scale replication of project activities.

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PROJECT OBJECTIVE

The development objective of the project was to increase significantly the use of environmentally friendly agricultural practices by farmers and agro-industry in Moldova in order to reduce nutrient discharge from agricultural sources to the Danube River and Black Sea. The global environmental objective of the project was to reduce the discharge of nutrients into surface and groundwater in watersheds draining into the Danube River and Black Sea.

In support of this, the project was designed to assist the Government of Moldova to: (i) promote the adoption of mitigating measures by farmers and agro-industry for reducing nutrient loads (nitrogen and phosphorous) entering local water bodies; (ii) strengthen national policy, regulatory enforcement and institutional capacity for agricultural nutrient pollution control and organic farming; and (iii) promote a public awareness campaign and replication strategy so that project activities could be replicated in similar areas within Moldova and other Black Sea riparian countries.

RESULTS: PROCESS

INDICATOR #1: Policy framework for non-source pollution meeting EU criteria in place. Standards developed, certification process established and legislation in place.

The Project contributed to the drafting of the Law on Ecological Farming and the Law on Soil Conservation, in particular to harmonize with the EU Nitrate Directive as well as developed a Code of Good Agricultural Practices in line with EU requirements.

INDICATOR #2: Increased awareness of environmental issues in agro-industry among farmers.

At project start, only 4% of people surveyed were aware of environmental issues in agriculture. By project end, 58% of people surveyed were aware of environmental issues in agriculture and were implementing environmentally friendly agricultural practices. A broad nation-wide public awareness program regularly disseminated the potential benefits accrued through implementation of project activities. The project provided funding to develop, publish, and disseminate 500 copies of the Code of Good Agricultural Practices.

RESULTS: STRESS REDUCTION

INDICATOR#1: Increased number of agro-processors adopting mitigation measures and increased area of agricultural land with resource conservation technologies and increased production of organically-certified products. Fifty-nine farms installed adequate manure storage facilities. Seven agro-processors installed water treatment plants. Efficient irrigation technology was introduced on 720 ha of land exposed to soil erosion on 27 farms. Grassed waterways, buffer strips, forest belts on 253ha (9 farms) were supported under the project. The envisaged integrated management program for the wetland area was successfully implemented, including: (a) zone delineated with marks and landmarks; (b) ecological reconstruction of the forest on 26 ha, using tall saplings; (c) two concrete bridges with outflow systems; and (d) ten wooden bridges to improve public access.

INDICATOR#2: (a) Increased number of manure management facilities at household level; (b) Demand for project interventions by farmers outside pilot watershed area.

(a) 40% of target achieved. The project was designed to install eight commune village stores together with 1,200 household manure storage facilities. However, only three villages with communal platforms and 450 individual platforms were supported by project end. (b) Dissemination of project benefits resulted in a high demand for project support outside the pilot watershed area. Three village platforms were built in two counties outside the pilot watershed area. Moreover, several villages outside the pilot area requested the blueprints for individual and communal platforms.

RESULTS: WATER RESOURCE AND ENVIRONMENTAL STATUS

INDICATOR#1: *Improved water quality through N and P reductions in project area.* Grants provided to agro-processors resulted in sustainable management of 83,000 tons of manure including use as fertilizer on 2,718 ha of agricultural land. Consequently, leakage into water streams of about 280 tons of N and 225 tons of P was avoided. Support was provided to seven agro-processing enterprises to construct wastewater treatment facilities with a total capacity of 290m³/day. Water quality tests conducted at treatment facility entry and exit points averaged a reduction in Ammonia Nitrogen N (NH₄⁺) of about 13-14 kg/day, when working at full capacity. At the household level, 18,000 tons of manure was collected and stored on village platforms. Project interventions resulted in manure storage for 46 percent of cattle, 16 percent of pigs, and 14 percent of sheep and goats in the pilot watershed.

INDICATOR#2: *Increased number of agro-processors and farmers adopting measures for nutrient reduction.* Increased awareness of the benefits of mainstreaming environmental considerations in agriculture has led to increased interest in implementing manure management practices as well as other environmentally friendly agricultural practices. Farmers and agro-processors outside the project area are now undertaking environmentally friendly investments which collectively is resulting in continued reductions in nutrient loads to the Danube-Black Sea watershed in Moldova.